

Abstract

A linear actuator for the control of a valve, includes a motor portion (2) and an actuator device portion (3) comprising a rotatable member (9) provided with a threaded portion (10) matching the threaded portion of a linear displacement threaded bolt (11) the rotatable member being supported by bearings (15, 16) and drivable in rotation by the motor portion. The linear actuator further includes an axially compressible coil spring (19) mounted in a compressed state between a valve head (37) arranged at one end of the threaded bolt (11) and the casing of the actuator, wherein the threaded portion (10) of the threaded bolt is comprised of at least one thread arranged at an angle α relative to a plane orthogonal to the axial direction of motion of the threaded bolt and wherein the characteristic $\tan(\alpha)$ exceeds the friction coefficient μ between the threaded bolt and the rotatable member, so that the motion of the threaded bolt is reversible.